

# 11<sup>th</sup> International Conference on Central Nervous System

April 27, 2022 | Webinar



## Scientific Tracks & Abstracts

## Sessions

Neuroimmunology, Neurology, Clinical Neurology, Neurological Nursing, Dementia

**Session Chair**

Marina Komaroff | Nura Pain Clinics | USA

Neuropediatric, Neurodegenerative disorders, Psychiatry, Behavioural Sciences

**Session Chair**

Caroline A. Sewry | RJA Orthopaedic Hospital | UK

**Title:** Title: Angioplasty alone versus Acute Stenting for acute tandem occlusions due to internal carotid artery atherosclerotic

Wei Li | Hainan Medical University | China

**Title:** Title: The Aquaporin4-IgG status and how it affects the clinical features and treatment response in NMOSD patients in Egypt

Amany Hussein Abolmagd Ahmed Ragab | Cairo University | Egypt

**Title:** Title: Evaluation of the one-year effectiveness and side effects of Rituximab in patients with Multiple Sclerosis & Comparison of side effects of the first and second doses of Sinopharm vaccine in patients with Multiple Sclerosis in Kermanshah-Iran (2021)

Nazanin Razazian | Imam Reza Hospital | Iran

**Title:** Title: Investigation of common risk factors between Polycystic Ovary Syndrome and Alzheimer's disease: a narrative review

Narges Eskandari Roozbahani | Imam Reza Hospital | Iran

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## Angioplasty alone versus Acute Stenting for acute tandem occlusions due to internal carotid artery atherosclerotic

**Wei Li**

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Various studies have demonstrated the benefit of endovascular treatment in patients with acute anterior tandem occlusions (TO). Consider for imminent reocclusion or recurrent embolization after successful mechanical thrombectomy, some interventionists advocate for acute extracranial ICA stenting. For that reason, others adopt to perform only balloon dilatation because of several potential concerns regarding technical complexity, hyperacute in-stent thrombosis, and the risk of symptomatic intracranial hemorrhage (ICH) owing to double antiplatelet regimen-especially in few severe cases with low ASPECTS scores and rtPA on board. At the same time, the etiology of internal carotid occlusion (some were atherosclerotic disease and other cases were arterial dissection) was heterogeneous in these retrospectives, observational cohort studies. Patients with cervical dissection must be managed differently from those with atherosclerotic disease.

Hence a multicenter, retrospective cohort study was performed, aiming to investigate the differences in effectiveness and safety between balloon angioplasty alone and acute stenting using propensity score matching (PSM) analysis in acute tandem occlusions (TO) owing to internal carotid artery atherosclerotic disease.

### Recent Publication

1. Predictive value of the THRIVE score for outcome in patients with acute basilar artery occlusion treated with thrombectomy. Beilei Chen, Liu Yang, Jing Hang, Shoujiang You, Jun Li, Xiaobo Li, Liangzhu Wang, Li Jiang, Wei Li, Hailong Yu Brain Behav. 2019 Oct;9(10):e01418. doi: 10.1002/brb3.1418. Epub 2019 Sep 26.
2. Management of acute tandem occlusions: Stent-retriever thrombectomy with emergency stenting or angioplasty. Wei Li, Zhonglun Chen, Zheng Dai, Rui Liu, Qin Yin, Huaiming Wang, Yonggang Hao, Yunfei Han, Zhongming Qiu, Yunyun Xiong, Wen Sun, Wenjie Zi, Gelin Xu, Xinfeng Liu J Int Med Res. 2018 Jul;46(7):2578-2586. doi: 10.1177/0300060518765310. Epub 2018 May 4.

### Biography

Wei Li was born on 28th February 1985 in China. He completed M.D and works as an Interventional Neurologist in the First Affiliated Hospital of Hainan Medical University, Haikou, China.

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## The Aquaporin4-IgG status and how it affects the clinical features and treatment response in NMOSD patients in Egypt

**Amany Hussein Abolmagd Ahmed Ragab**

Cairo University, Egypt

**Background:** In Egypt, the characterization of Neuromyelitis Optica Spectrum Complaint (NMOSD) is deficient.

**Objectives:** To estimate the demographics, clinical features, aquaporin4 antibodies (AQP4-IgG) status, and neuroimaging of Egyptian NMOSD patients.

**Methods:** Retrospective analysis of 70 NMOSD patients' records were attained from the MS clinic, Kasr Alainy clinic, during January 2013 and June 2018.

**Results:** Patients' mean age was  $34.9 \pm 9.2$  times, and the mean at complaint onset was  $28.9 \pm 10.5$  times. Fifty-nine cases had an original monosymptomatic donation. AQP4-IgG was measured using either enzyme-linked immunosorbent assay (ELISA) (22 patients) or cell-grounded assay (CBA) (34 patients). Six and 29 patients had shown positive results, independently ( $p < 0.001$ ). 84 had typical NMOSD brain lesions. Longitudinally expansive myelitis was detected in 49 patients, and 9 had either short parts or normal cords. Treatment failure was advanced in seropositive patients. Rituximab significantly reduced the annualized relapse rate (ARR) compared to Azathioprine with a chance reduction of ( $76.47 \pm 13.28$ ) and ( $10.21 \pm 96.07$ ), independently ( $p = 0.04$ ). Age at complaint onset was the only independent predictor for disability ( $p < 0.01$ ).

**Conclusion:** Treatment failure was massive in seropositive patients. Still, there was no difference in clinical or radiological parameters between seropositive and seronegative patients. Patients, who were polysymptomatic or with aged age of onset, were prognosticated to have advanced unborn disability anyhow of the AQP4-IgG status.

### Recent Publications

1. Najib Kissani, Laila Liqali, Khaoula Hakimi, Jacob Mugumbate, Daniel Gams Massi, Eetedal Ahmed A. Ibrahim, Enat Yewnetu, Mofou Belo, Jo Wilmshurst, Pascal Mbelesso, Amany Hussein Ragab, Athanase Millogo, Leone Massimo. Why does Africa have the lowest number of Neurologists and how to cover the Gap?. December 2021. Journal of the Neurological Sciences 434(13):120119. DOI: 10.1016/j.jns.2021.120119.
2. Ragab AH, Kishk NA, Hassan A, et al. Changes in migraine characteristics over 30 days of Ramadan fasting: A prospective study. Headache. 2021;00:1-6. Doi: 10.1111/head.14231.
3. Kissani, N., El Khia, A., Watila, M. M., El Aarroumi, I., Wahba, H. M., Emara, T. H., Eliashiv, D., Kissani, I., Gams Massi, D., Jabang, J. N., Ragab, A. H., & El Khia, A. (2022). How New Technologies Could Help Improve Healthcare, Teaching, and Sensitization During Pandemics Like COVID-19. In K. Kahime, M. Zahir, M. Hadach, M. El Hidan, & B. Bougadir (Ed.), Public Health and Economic Resiliency in the Post-COVID-19 Era (pp. 86-104). IGI Global. DOI :10.4018/978-1-7998-8202-2.ch006

### Biography

Amany Hussein Abolmagd Ahmed Ragab is a Lecturer in Neurology in Kasr al-Ainy hospital. She is a member of the American Academy of Neurology, MDS, Member of the Egyptian Society of Neurology, Psychiatry, and Neurosurgery and Member of the International Child Neurology Association (ICNA Pedia). She is a founding member of FND society. She serves as an Editor in Frontiers in Neurology and Neuroscience Research and as a Peer Reviewer at Publon Academy.

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## Evaluation of the one-year effectiveness and side effects of *rituximab* in patients with multiple sclerosis

Nazanin Razazian<sup>1</sup>, Poona Ahmadi<sup>1</sup>, Mansour Rezaei<sup>2</sup>, Negin Fakhri<sup>3</sup>

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<sup>2</sup> Social Development and Health Promotion Research Center, Iran

<sup>3</sup> Student Research Committee, Iran

Multiple sclerosis (MS) is an inflammatory disease affecting the central nervous system and leading to neurological defects. Rituximab is a medication that is administered intravenously for treating MS. The present study examined the one-year effectiveness and side effects of rituximab.

**Methodology & Theoretical Orientation:** This quasi-experimental clinical trial was conducted in Kermanshah (2018-19). Patients were treated with rituximab for one year. At the beginning of the study, the EDSS (Expanded Disability Status Scale) score and active lesions based on Magnetic Resonance Imaging (MRI) for patients were evaluated. Also, the patients were followed up in terms of relapse and medication side effects in this year. At the end of the year, EDSS score and MRI were evaluated again. The data were analysed by SPSS-25 software.

**Findings:** 44 patients with MS including 29 (65.9%) female and 15 (34.1%) males were studied. 22 patients had RRMS and 22 patients had progressive-relapsing MS (PRMS). In RRMS patients, the EDSS score was significantly reduced ( $P = 0.010$ ) but in PRMS patients EDSS was non-significantly increased ( $P = 0.148$ ). In both RRMS and PRMS patients, the number of MRI lesions was lower than at the beginning of the study and this decrease was not significant ( $P > 0.05$ ). More Immediate side effects occurred in RRMS patients (13.6% vs. 4.5%) and more delayed side effects were observed in PRMS patients (54.5% vs. 36.3%).

**Conclusion & Significance:** rituximab caused a greater reduction in EDSS in the treatment of RRMS than PRMS and its use had few side effects.

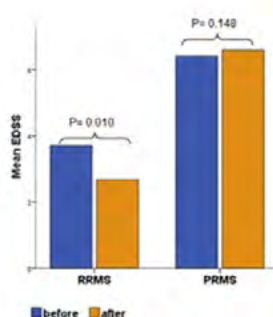


Figure1. Comparison of EDSS before and after treatment by type of MS

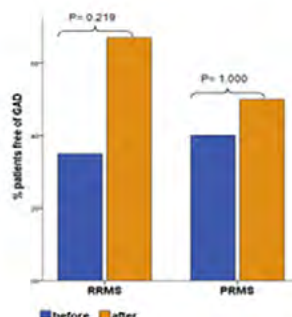


Figure2. Comparison of the proportion of patients without lesions on MRI before and after treatment by type of MS

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## Recent Publications

1. Prevalence of Multiple sclerosis and its clinical and demographic characteristics in Kurdish populations in western Iran (2020) N Razazian, S Eskandarieh, S Siabani, D Afshari, MA Sahraian, O Khezri, Multiple Sclerosis and Related Disorders.2022; 57, 103441
2. One-year Effectiveness and Side Effects of Fingolimod in Multiple Sclerosis Patients
3. N Razazian, P Ahmadi, M Rezaei, N Fakhri. Journal of Mazandaran University of Medical Sciences.2021; 31 (203), 173-179
4. The impact of physical exercise on the fatigue symptoms in patients with multiple sclerosis: a systematic review and meta-analysis. N Razazian, M Kazemina, H Moayedi, A Daneshkhah, S Shohaimi. BMC neurology.2020; 20 (1), 1-11

## Biography

Nazanin Razazian has conducted an MS registry in Imam Reza Hospital, a referral hospital in Kermanshah, west of Iran. To date, she has enrolled 1780 patients with MS. She has been involved in running a neurology residency program at Kermanshah University of Medical Sciences in 2008. She supervised more than 30 residents. She has experience in teaching medical students. Her publication record includes more than 50 papers, most of which are focused on the Pharmacological and Nonpharmacological treatment of Multiple Sclerosis. A part of her research involves using exercise as a nonpharmacological symptomatic treatment for MS patients. Her recent projects are focused on the complications of COVID-19 in MS patients. The other outstanding article is about cerebral vein thrombosis in the west of Iran. It discusses the association between a mutation in factor V Leiden and cerebral venous thrombosis in the Kurdish population.

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## Comparison of side effects of the first and second doses of Sinopharm vaccine in patients with multiple sclerosis in Kermanshah-Iran (2021)

**Nazanin Razazian<sup>1</sup>, Mohammad-Ali Sahraian<sup>2</sup>, Mansour Rezaei<sup>3</sup>, Sharareh Eskandarieh<sup>2</sup>, Kianoosh Khamooshian<sup>1</sup>, Seyede-Elham Mousavi<sup>1</sup>, Negin Fakhri<sup>4</sup>**

<sup>1</sup> Imam Reza Hospital, Iran

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The aim of this study was to comparison of side effects of first and second doses of the Sinopharm vaccine in on people with MS (PwMS). Methodology & Theoretical Orientation: In this follow-up study, among PwMS in Kermanshah province who received the Sinopharm vaccine, sampling was performed using the list of patients in the nationwide MS registry of Iran. Findings: Finally, 188 PwMS including 148 (78.7%) females and 40 (21.3%) males were studied. The mean (SD) age was 42.66 (11.1) years. The prevalence of side effects of the Sinopharm vaccine in the first dose was significantly higher than the second dose (58.5% vs. 47.0%) ( $P = 0.012$ ). The most common side effects in the first dose were fatigue (30.1%), myalgia (29.8%), fever (25.0%), and headache (22.3%), and also in the second dose were fatigue (27.1%), headache (18.6%), myalgia (17.5%) and fever (14.9%). Vaccine side effects started 13.80 (22.2) hours after the first dose and 17.42 (24.6) hours after the second dose. Side effects in both doses resolved in less than 48 hours on average. In general, we can say that Side effects were significantly more prevalent in the first dose than in the second dose. Most side effects are moderate in severity and transient. Conclusion & Significance: The prevalence of side effects of the Sinopharm vaccine in the first dose was significantly higher than the second dose. Most side effects are moderate in severity and transient. A case of a major complication was observed.

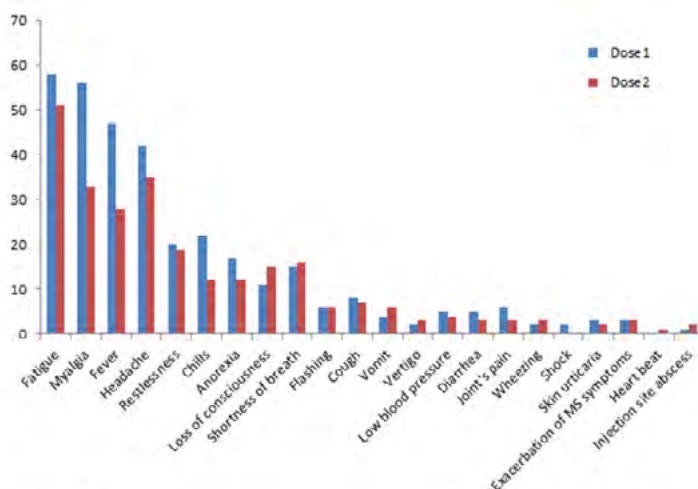


Figure1. Side effects of Sinopharm vaccine by the first and second dose of vaccine in MS patients

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## Common risk factors between polycystic ovary syndrome and alzheimer's disease

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Alzheimer's disease (AD) is the most prevalent progressive neurodegenerative disorder of the brain, and recent studies suggest a relationship between endocrinal dysregulation and neuronal loss during AD pathology. Polycystic Ovary Syndrome (PCOS) is one of the most common endocrine and metabolic disorders in premenopausal women, characterized by hyperandrogenism, chronic anovulation, and/or ultrasound evidence of small ovarian cysts. Obesity and insulin resistance are also the vital factors influencing the clinical manifestations of this syndrome. Knowing the common risk factors for Alzheimer's and PCOS may eliminate them and prevent neurodegenerative Alzheimer's disease in the future. Neurosteroids and sex steroids have been suggested as one of the reasons for reducing the pathology of AD. Alzheimer's is more usual in women than men, and estrogen depletion is generally associated with an increased risk of AD. The age-related decrease in brain levels of testosterone in men and 17 $\beta$ -estradiol (E2) in women during menopause has been correlated with a greater risk of developing AD. As Alzheimer's patients have risk factors similar to those of PCOS, such as insulin resistance, vitamin D deficiency, sexual hormonal changes, inflammation, and sleep disorders, it may be hypothesized that PCOS may elevate the risk of Alzheimer's disease. In a study we summarized the possible pathways that may explain the association between Alzheimer's and PCOS. According to our research, the factors involved in Alzheimer's and PCOS disorders may share some common risk factors. In patients with PCOS, increased LH to FSH ratio, decreased vitamin D, insulin resistance, and obesity are some of the most crucial factors that may increase the risk of Alzheimer's disease.

### Recent Publications

1. Sarahian N, Noroozadeh M, Saei Ghare Naz M, Eskandari-Roozbahani N, Mahboobifard F, Ramezani Tehrani F. Is there any association between migraine headache and polycystic ovary syndrome (PCOS)? A review article. *Molecular biology reports*. 2021 Oct 15:1-9.
2. Taherianfard M, Riyahi M, Razavi M, Bavandi Z, Eskandari Roozbahani N, Namavari MM. The Cataleptic, Asymmetric, Analgesic, and Brain Biochemical Effects of Parkinson's Disease can be Affected By *Toxoplasma Gondii* Infection. *BioMed Research International*. 2020 May 5;2020.
3. Eskandari-Roozbahani N, Shomali T, Taherianfard M. Neuroprotective effect of *Zataria Multiflora* essential oil on rats with Alzheimer disease: A mechanistic study. *Basic and Clinical Neuroscience*. 2019 Jan;10(1):85.

### Biography

Narges Eskandari Roozbahani was born on 2nd March 1981 in Kermanshah, Iran. She is working as a researcher in Clinical Research Development centre at Kermanshah University of Medical Science, Kermanshah, Iran. She completed her Ph.D. in Pharmacology under the supervision of Dr. Shomali on Effect of ZM Boiss essential oil in Alzheimer's Disease in Shiraz University in 2018. She completed her M.sc in Physiology with the project titled Effect of garlic extract on formalin pain under the supervision of Dr. Sajedianfard in 2013. Her research interests include Bioinformatics, Pharmacology, Metabolic disorder, Cancer, Herbal drugs, Toxicology and Alzheimer's Disease. She has published more than 20 research articles in the international journals in the areas of her interest.

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